

## EFFECT OF GROUP INTERVENTION FOCUSING ON SOCIAL EMOTIONAL THINKING SKILLS IN CHILDREN WITH DEVELOPMENTAL LANGUAGE DISORDER (DLD) - A CASE SERIES

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### ABSTRACT

**Introduction:** Over the past decades, various research was directed to improve social skills targeting greeting, social interaction, making eye contact with fewer and or no emphasis on Socio emotional thinking skills in children with Developmental Language Disorder (DLD). This case series study scrutinizes the effectiveness of teaching socio-emotional thinking skills over group therapy intervention in children with Developmental Language Disorder (DLD).

**Method:** A total of five children with Developmental Language Disorder (DLD) participated in the study. Group therapy intervention was provided based on socio-emotional thinking skills using Michelle Garcia Winner's Social Thinking Curriculum. Pre- and post-evaluation of socioemotional thinking skills carried out during group therapy were done.

**Result & Conclusion:** Result indicated significant changes in socioemotional thinking skills from pre and post-evaluation scores. Thus, this study provides an evidence-based practice for the speech-language pathologist. The current findings will also aid the clinician to select appropriate intervention strategies for improving socioemotional thinking skills and quality of life in children with Developmental Language Disorder (DLD).

**Key words:** Social thinking skills, Developmental Language Disorder (DLD), group therapy, Socio emotional skills

### INTRODUCTION

Social skills are the skills we use every day to interact and communicate with others. It includes verbal and non-verbal communication, such as speech, gesture, facial expression and body language (Foley, G. N., & Gentile, J. P., 2010). A child has strong social skills if they have the knowledge of how to behave in social situations and understand both written and implied rules when communicating with others. Social skills are important for empowering an individual to have and maintain positive interactions with communicating partner.

Social skills help the child to interact with other children but to determine the ability to what other people are doing and expecting within the specific context social thinking skills are needed. Social thinking is very important for children to develop the skills they need to be flexible social thinkers and social problem solvers. Social Thinking is a method that is used to help children effectively interact with others, helping them figure out the best way to think when they are in social situations like social problem solving, ability to adapt in environment, emotions and also learn about the connection

between thoughts, feelings and others behaviours (Winner, M. G., & Crooke, P., 2021).

Social thinking skills in developmental disorder especially in autism children need help in learning how to behave in different kind of social situations. They often have the desire to interact with others, but may not know how to engage friends or may be overwhelmed by the idea of new experiences. Building up social skills with practice can help the children to enhance participation in normal environment.

When compared to other paradigms, socioemotional thinking skills still represents a promising conceptual framework that can be utilized by SLPs and educators when developing treatment plans for individuals with social learning issues. As with any treatment plan, a holistic approach must be considered. A lack of social engagement can limit opportunities for children with to successfully participate in physical activity (Pan, 2009). The need for evidence for this children's' multiple learning challenges and how their needs change across their lifespan. Most of the studies were focused on social skills, not a socio emotional thinking skill. There is a need for focus on social emotional thinking skills interventions for children with Developmental Language Disorder (DLD), so this current study was carried out.

Several studies examined social emotional thinking skills in Developmental Language Disorder (DLD). Adams. et.al., (2008) examined the effectiveness of a mentoring program for social thinking intervention in the schools and found significant changes for the group based on the parent and teacher rankings using the Autism Social Skills Profile (Bellini, S., & Hopf, A. 2007). Similarly, significant changes were reported from pre- to post- measures on verbal and non-verbal social thinking skills in children with autism spectrum disorders (ASD) was examined by Crooke, P.J., Hendrix, R.E., & Rachma, J.Y. (2008). Aspect of language involving not only grammar, it also based on

how the language used socially. More recently Turker, S., Pu, D., Ballard, K. J. (2021) studied pragmatic and social emotional skills in children with Developmental Language Disorder (DLD) and suggested that pragmatic and social emotional skills that require the active use of language. As well they explained how teachers, parents, and peers can help prevent and overcome socioemotional needs of children with Developmental Language Disorder (DLD). The purpose of the study is to identify the effect of group intervention focusing on social emotional thinking skills in children with Developmental Language Disorder (DLD) using case series study.

### Research questions

- Does working on emotional thinking skill improve social skills in children with Developmental Language Disorder (DLD)?
- Is group intervention program focusing on social thinking skills effective in children with Developmental Language Disorder (DLD)?

### MATERIALS AND METHOD

This is a case series study design which included five children enrolled in inclusive educational set up attending speech and language intervention. Children were recruited based on the following criteria; (1) Diagnosis of mixed receptive and expressive language disorder 2) Aged 6–12 years of age; (3) Language test results (CELF) between 7 -9 years in the language component (4) No prior admission in a social emotional thinking skills intervention program within or outside the school setting; (5) Diagnosis of PDD by psychiatrist.

All the children who participated in the group intervention study were also enrolled in individual speech and language therapy session for three sessions in a week on a regular basis. Duration of the therapy session ranged for 60 minutes. Table 1 shows the characteristics of the five-cases enrolled in the study.

**Table 1 – Information of participants**

Cases	Age	Case 2	Diagnosis of Speech language pathologist	Diagnosis of Psychiatrist	Educational intervention	Speech and Language intervention
Case 1	7 Year	Male	MRELD	PDD	Yes	Yes
Case 2	9 Year	Male	MRELD	PDD	Yes	Yes
Case 3	7 Year	Male	MRELD	PDD	Yes	Yes
Case 4	11 Year	Male	MRELD	PDD	Yes	Yes
Case 5	9 Year	Male	MRELD	PDD	Yes	Yes

\*MRELD- Mixed Receptive and Expressive Language disorder; \*PDD-Pervasive Developmental Disorder

The study was carried out in 3 stages

### **Stage I – Pre-evaluation**

In this stage, prior to the commencement of group therapy, social emotional thinking skills were assessed in children with Developmental Language Disorder (DLD). The following tools are used to assess children socio thinking skills before intervention.

- a. Behavior Assessment System for Children, Second edition (BASC –2)
- b. Clinical Evaluation Language Fundamentals – 4 Pragmatics Profile

#### **a. Behavior Assessment System for Children, Second edition (BASC –2)**

Teacher Rating Scales (TRS) and Parent Rating Scales (PRS) from Behavior Assessment System for Children, Second Edition (BASC–2) were used for assessing behavioral and emotional problems in the current study. It was administered as its most widely used tools to test effective communication in children and adolescents from 2 ½ years through 21 years of age, in both school and clinical settings. Rating form were disturbed separately for classroom teacher and parents. They were asked to complete a set of questionnaires both pre and post socio emotional thinking group therapy sessions. The following

socioemotional thinking problems such as hyperactivity, attention problems, aggression, learning problems, contact problems, adaptability, anxiety, social skills, depression, leadership, somatization, activities of daily living, atypicality, study skills, withdrawal and functional communication were rated by teachers and parents. It was showed in Appendix 1.

#### **b. Clinical Evaluation Language Fundamentals – 4 Pragmatics Profile (CELF-PP)**

Clinical Evaluation Language Fundamentals – 4 Pragmatics Profile (CELF-PP) checklist was rated by the therapist both pre and post group therapy session to identify verbal and nonverbal pragmatic deficits that may negatively influence social and academic communication.

### **Stage II- Intervention**

In this stage, group therapy intervention was carried out to facilitate socio emotional thinking skills for children with Developmental Language Disorder (DLD). Hence, the focus of this socio thinking group therapy was planned and organized to teach and promote positive pragmatic language skills within a group of peers in a consistent and familiar session format. A structured program was designed to engage

children in fun learning about social communication which was based on the concepts of Michelle Garcia Winner's Social Thinking skills. Total of 10 therapy sessions were conducted. Each group therapy sessions lasted for total 1 hour 30 minutes with a snack break of 15 minutes. All sessions were different from one another and plans were individually formulated based on the needs of the child and the group as a whole. Periodic review of the therapy goals was carried out. Activities were planned and reviewed out for each therapy session for the goals provided in appendix 2. Appropriate concern from parents were obtained before enrolled for group therapy. Video documentation were carried out for later analysis purpose. Socio emotional thinking group therapy intervention was focused on the following skills such as personal space, sharing, body talk, whole body listening, thinking with our eyes, brain and body in the group, conversation rules, control anxiety and using coping strategies.

**Stage III- Post-evaluation**

In this stage, children socio emotional thinking skills were assessed after group therapy intervention using Behaviour

Assessment System for Children, Second edition (BASC – 2) and Clinical Evaluation Language Fundamentals – 4 Pragmatics after intervention.

**REDULT AND DISCUSSION**

This section will discuss about the pre and post evaluation results of

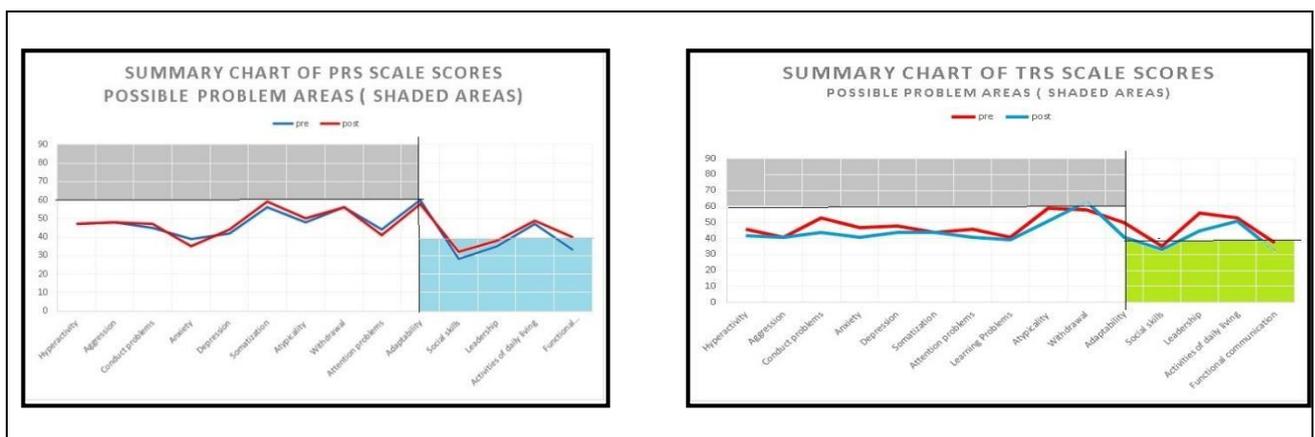
1. Behaviour Assessment System for Children, Second edition (BASC –2).
2. Clinical Evaluation Language Fundamentals – 4 Pragmatics Profile

Behaviour Assessment System for Children, Second edition (BASC – 2)

The classroom teacher and a parent completed a set of questionnaires pre and post socio emotional thinking group therapy.

**Case 1**

Pre and Post Parents rating scale (PRS) and Teacher rating scale (TRS) on socio emotional thinking group therapy of BASC-2 form are shown in fig 1. Results indicates adaptability, social skills, leadership, functional communication were improved from socioemotional thinking therapy.



**Fig 1. Represents Pre and Post Parent Rating Scales (PRS) and Teacher Rating Scales (TRS) on socio emotional thinking group therapy**

**Case 2**

Pre and Post Parents rating scale (PRS) and Teacher rating scale (TRS) on socio emotional thinking group therapy of BASC- 2 form are shown in fig 2. It indicates adaptability, social skills, leadership, withdrawal and functional communication were improved.



**Fig 2. Represents Pre and Post Parent Rating Scales (PRS) and Teacher Rating Scales (TRS) on socio emotional thinking group therapy**

*Case 3*

Pre and Post Parents rating scale (PRS) and Teacher rating scale (TRS) on socio emotional thinking group therapy of BASC- 2 form are shown in fig 3. It indicates hyperactivity, aggression and conduct problems were improved.



**Fig 3. Represents Pre and Post Parent Rating Scales (PRS) and Teacher Rating Scales (TRS) on socio emotional thinking group therapy**

**Case 4**

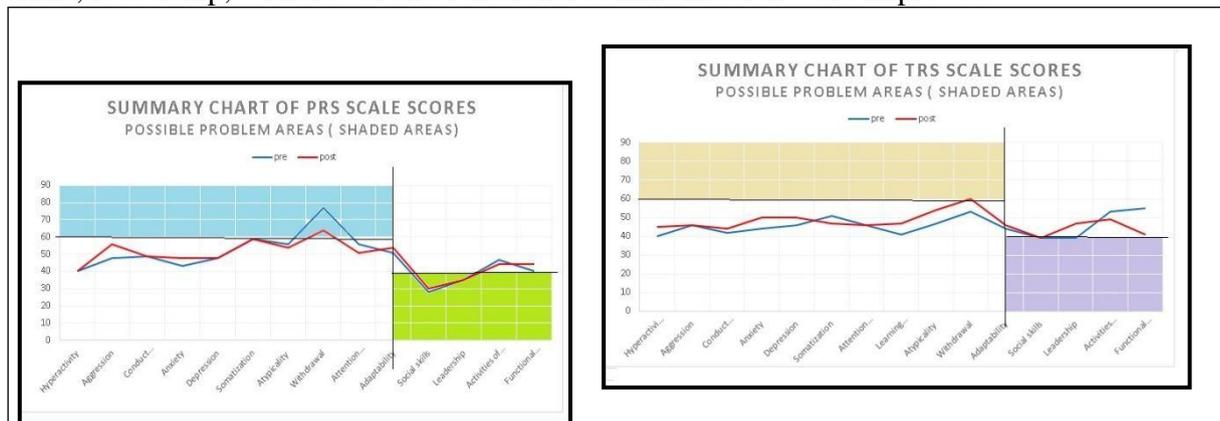
Pre and Post Parents rating scale (PRS) and Teacher rating scale (TRS) on socio emotional thinking group therapy of BASC- 2 form are shown in fig 4. It indicates adaptability, social skills, leadership, withdrawal and functional communication were improved.



**Fig 4. Represents Pre and Post Parent Rating Scales (PRS) and Teacher Rating Scales (TRS) on socio emotional thinking group therapy**

*Case 5*

Pre and Post Parents rating scale (PRS) and Teacher rating scale (TRS) on socio emotional thinking group therapy of BASC- 2 form are shown in fig 5. It indicates adaptability, social skills, leadership, withdrawal and functional communication were improved.



**Fig 5. Represents Pre and Post Parent Rating Scales (PRS) and Teacher Rating Scales (TRS) on socio emotional thinking group therapy**

**Clinical Evaluation Language Fundamentals – 4 Pragmatics Profile**

Pre and post assessment on pragmatics profile rated by parents and teachers was shown in Table 2. It indicates most of the children did not meet the criteria but their score was improved on socio pragmatic skills following intervention.

**Table 2. Pre and post assessment on pragmatics profile rated by parents and teachers**

Period of evaluation	Group Therapy	Case 1	Case 2	Case 3	Case 4	Case 5					
Parent rating	Pre	107	Fail	140	Pass	141	Pass	107	Fail	92	Fail
	Post	108	Fail	151	Pass	173	Pass	108	Fail	132	Fail
Teacher rating	Pre	78	Fail	106	Fail	136	Pass	75	Fail	115	Fail
	Post	105	Fail	106	Fail	143	Pass	105	Fail	122	Fail

*\*Pass: score of >136 on Clinical Evaluation Language Fundamentals – 4Pragmatics*

*\*Fail: score of <136 on Clinical Evaluation Language Fundamentals – 4 Pragmatics*

## DISCUSSION

Socio emotional thinking group therapy in children has a strong social, emotional thinking and academic component (Zins et al., 2004). The need for evidence defining the effectiveness of social emotional thinking skills interventions for children with Developmental Language Disorder (DLD) has reached a point of urgency. On review of literature, it was observed majority of the research work were associated with socio cognitive intervention (Gevers et al. 2006). It was also noticed that parents and teachers are main emotional builders while treating socioemotional thinking skills for children. Most speech language pathologist, teacher and parents have encountered high demand in social needs in children with Developmental Language Disorder (DLD) on a daily basis. The foundation for enhancing emotional balance is the children' ability to recognize, understand and manage their emotions. Hence, this case series study worked on concepts of socio emotional thinking skills based on of Michelle Garcia Winner's Social Thinking skills.

In this case series study, the effectiveness of socio emotional thinking skills group training was measured using Behaviour Assessment System for Children, Second edition (BASC – 2). Clinical Evaluation Language Fundamentals – 4 Pragmatics Profile. Improvement was noticed across different aspects of BASC-2 components. Adaptability was improved in case 1,2 and 4. Social skills were seemed to improve in all cases. Leadership skill was improved in case 1,2,4,5. Functional communication skills were improved in case 1, 2, 5. Withdraw symptoms were found to be reduced in case 2, 4,5. Nevertheless, symptoms like hyperactivity, aggression and conduct problem were reduced only in case 3. The current study is in harmony with the result obtained into the research conducted by Crooke, P.J., Hendrix, R.E., & Rachma, J.Y. in 2018.

However, when evaluating improvement

based on the concepts of Michelle Garcia Winner's Social Thinking skills, positive changes were witnessed specific to the intervention goals. Thus, in this case series study involving pre and post socio emotional thinking skills group intervention, results revealed improvement in personal space, sharing, body talk, whole body listening, expected and unexpected behavior, brain and body in the group, controlling anxiety and using coping strategies following the intervention. Though skills such as thinking with eyes and conversational rules were emerging in cases 1,2,3, & 5 but comparatively less in case 4 following the intervention. The results obtained in the current study needs to considered for three vital reasons to be applied in the therapy intervention process. First, they help to guide the appropriate group therapy intervention strategies of future work involving socioemotional thinking skills in children with Developmental Language Disorder (DLD); second, it provide some evidence suggesting that group therapy intervention play a significant role in the improvement of socioemotional thinking skills in children with Developmental Language Disorder (DLD); Third, it provides children to gain insight and social understanding why and what s/he should be looking at to sustain the social connection and help them understand how to apply related social skills in natural situation.

Information regarding children socioemotional thinking skills helps to understand how well a child social skill functioned through group processing. However, successful communication is dependent on a children ability to use language appropriately (Calculator, 2009). Thus, for children with Developmental Language Disorder (DLD), further strategies may be needed to overcome language and communication barriers. While children learn particular behavior by watching the behaviors of others, children with Developmental Language Disorder (DLD) and other communication challenges

do not always pick up on the necessary cues for success. Therefore, it is important that they acquire appropriate social skills to effectively learn alongside their peers (Winner, M. G. et. al., 2007; Grenier, M., & Yeaton, P. 2011). More importantly, this current study provides single subject case series to accurately compare each child to his or her own baseline over time to measure changes in understanding and use of related social skills in real-time social interactions. Limitations of this study are small sample size (n = 5), lack of control condition due to pre- and post-treatment data among the cases, generalization of behaviors across environments and the effect of individual session on group therapy intervention.

### CONCLUSION

Socioemotional thinking skills offers benefit to children with Developmental Language Disorder (DLD) by helping them learn to meet social expectations and develop social relationships. However, implementation of enhancing this socioemotional thinking skills in regular therapy session is very rare. This study pitches attention towards socio emotional thinking group therapy suggesting that working on socio emotional thinking in children with Developmental Language Disorder (DLD) may be an effective approach for increasing positive social behaviors and decreasing less desirable social behaviors within this specific population. Further empirical investigation on the impact of group therapy on children's socioemotional thinking skills and theoretical work on desired outcomes considering the mentioned limitation are needed to promote successful and responsible use of the socioemotional thinking group therapy.

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### CONFLICT OF INTEREST

None

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## APPENDIX

**APPENDIX – I** (Behaviour Assessment System for Children, Second edition (BASC – 2) by Reynolds, C. R., & Kamphaus, R. W., 2002)

- a) **Hyperactivity** Indicates problematic levels of activity; child may display or engage in Bothering other children Rushing through things
- b) **Attention problems** Indicates problematic levels of paying attention; child may display Trouble listening Being distracted
- c) **Aggression** Indicates problematic levels of aggression; child may display or engage in Threats Hitting others
- d) **Learning problems** (ages 6 – 21 only) Indicates problems with learning in areas that may include Reading/math Organization skills
- e) **Conduct problems** (ages 6 – 21 only) Indicates a problematic levels of conduct problems; child may engage in Lies Breaks rules
- f) **Adaptability** Indicates below-average adaptability; that may include Difficulty

switching tasks Difficulty adjusting to change

- g) **Anxiety** Indicates problematic levels of anxiety; child may display Nervousness Worry
- h) **Social skills** Indicates below-average social skills that may include Does not complement others Unwillingness to volunteer
- i) **Depression** Indicates problematic levels of depression; child may display or complain of Sadness Being overwhelmed
- j) **Leadership** Indicates below-average leadership that may include Indecisiveness Makes poor suggestions
- k) **Somatization** Indicates problematic levels of somatization; child may display Headache General pain
- l) **Activities of daily living** Indicates below average daily living skills that may include Needs help dressing Acts safely
- m) **Atypicality** Indicates problematic levels of unusual behavior or thoughts; child may display or engage in strange behavior Babbling
- n) **Study skills** (ages 6 – 21 only) Indicates below-average study skills that may include Incomplete homework Poor study habits
- o) **Withdrawal** Indicates problematic levels of withdrawal; child may display or report Trouble making friends Avoidance of others
- p) **Functional communication** Indicates below-average communication skills that may include unclear communication cannot describe own feelings

**APPENDIX-II** (Crooke, P. J., Hendrix, R. E., & Rachman, J. Y. 2008)

1. **Personal Space** – is an approximate area surrounding an individual in which other people should not physically violate in order for them to feel comfortable.
2. **Sharing** – joint use of anything (toys, foods, stories), and space
3. **Body Talk** – what your body looks like and communicates when you are talking to someone
4. **Whole body listening** – the whole

body (eyes, ears, mouth, hands, feet, bottom, brain) needs to be focused on others in order to listen and show you are listening

**5. Thinking with our eyes** – using our eyes to figure out what non-verbal messages others are sending as well as what they might be thinking about

**6. Expected and unexpected behaviors** (calm body, vocal volume, starts, continue and complete activity, good sportsmanship, do activity in organized fashion).

**7. Brain and body in the group**—brain is actively paying attention and body is turned into the group

**8. Conversation rules** (initiates conversation, exchange conversations, makes relevant comment, statement or questions with and without adult model, takes turns and maintains topics).

**9. Control anxiety and use coping strategies** (using calming techniques, self-regulation strategies, appropriate body orientation, eye contact and vocal volume).